

5599/USSN 10/018,049  
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REMARKS

Applicants have considered the outstanding official action. It is respectfully submitted that the claims are directed to patentable subject matter as set forth below.

Initially, it is noted that claim 15 has been canceled as being directed to non-elected subject matter. Applicants reserve the right to file a division application directed to the non-elected subject matter.

Claims 10-14 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for the reasons as set forth at page 2-4 of the outstanding official action. Claims 10-14 have been canceled in favor of new claims 16-21. The matters raised by the Examiner have been addressed in the rewriting of the claims. It is noted that support in the specification for "deformable spacers" is present at page 11, line 27 and as shown in Figure 2 described at page 9, lines 10-12. Since "soft" spacers are "deformable" spacers, "hard" spacers are "non-deformable" since by definition "hard" is "not soft" and is the antonym of "soft" (see attached copy of page 870 of The Random House Dictionary of The English Language, 2d Edition, 1987). Withdrawal of the §112 rejection is respectfully requested.

The outstanding rejections based on art are as follows:

- (1) Claims 10-11 and 13 under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 5,998,556 (Kanto);
- (2) Claims 10 and 12 under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 5,528,400 (Arakawa); and
- (3) Claim 10-14 under 35 U.S.C. §102(b) as anticipated by Great Britain (General Aniline Film Corp.) with U.S. Patent No. 4,259,407 (Tada) as a teaching reference.

Claims 10-14 have been canceled and new claims 16-21 added. Independent claims 16, 20 and 21 are based on prior claim 10. Claims 17, 18 and 19 correspond to prior claims 11, 12 and 14, respectively.

Support for claim 16 as to "... the optical compensation layer (OCL) composed of a monomer material and/or a prepolymer material..." and "... to form said material layer, ..." is at pages 8, 9 and 10; for "... said material layer polymerizes at an elevated temperature which is lower than a glass phase transition temperature of the monomer material or the prepolymer material, ..." is at the last two lines of page 16 to page 17, line 1; for "... with (c) said material layer polymerizes at room temperature to a

first level ..." is at page 14; and for "said polymerizing said material layer is conducted in such a manner that deformation of macromolecules forming the monomer material or the prepolymer material, which is induced by an anisotropic mechanical strain due to shrinking the material layer in contact with and parallel to the substrate surface or the substrate surfaces, is permanently frozen-in by cross-polymerization ..." is at pages 6, 11, 13 in the second paragraph to page 14, line 6.

Support for claim 20 as to "... for angular compensation of phase retardation of a transmitted light through a liquid crystal layer (LCL), ...", "... with said OCL and said LCL having an optical thickness which is a product of birefringence ( $\Delta n_{\text{OCL}}$ ,  $\Delta n_{\text{LCL}}$ ) and thickness of the layer ( $d_{\text{LCL}}$ ,  $d_{\text{OCL}}$ ) respectively, ..." and the mass of the monomer material or the prepolymer material and thus the thickness of the OCL ( $d_{\text{OCL}}$ ) is selected such that optical thickness of the OCL fully cured equals the optical thickness of the LCL ( $\Delta n_{\text{OCL}} \times d_{\text{OCL}} = (\Delta n_{\text{LCL}} \times d_{\text{LCL}})$  ..." is at page 19.

Support for claim 21 as to "angular compensation of phase retardation of a transmitted light through a system including two cross polarizers with a liquid crystal layer (LCL) and the OCL inbetween ...", "said OCL and said LCL

having an optical thickness which is a product of birefringence ( $\Delta n_{\text{OCL}}$ ,  $\Delta n_{\text{LCL}}$ ) and thickness of the layer ( $d_{\text{LCL}}$ ,  $d_{\text{OCL}}$ ), respectively, ...", and "the mass of the monomer material or the prepolymer material and thus the thickness of the OCL ( $d_{\text{OCL}}$ ) is selected such that optical thickness of the OCL fully cured is smaller than the optical thickness of the LCL ( $\Delta n_{\text{OCL}} \times d_{\text{OCL}}$ ) < ( $\Delta n_{\text{LCL}} \times d_{\text{LCL}}$ )" is at page 21.

The claims as amended are submitted to be directed to patentable subject matter and in condition for allowance. More particularly, the applied art describes methods to produce polymer sheets not having the optical birefringence characteristics claimed. The Examiner as to the scope of alternatives of the prior claims interpreted the broadest claimed process to simply read on pouring any monomer or prepolymer on any rigid substrate and fully curing (by any means) the layer so formed such that the claimed shrinkage relationship is met (sentence bridging pages 3-4 of the outstanding official action). The claims of the present application have, therefore, been clarified to distinctly claim a method involving polymerization of a monomer material or a prepolymer material in layer form in such a manner to provide a fully cured layer with optical birefringence characteristics.

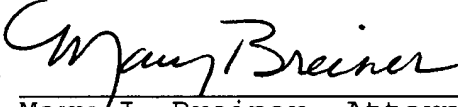
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Accordingly, in view of the clarification to the claims, applicants respectfully submit that the applied art does not teach or suggest the claimed invention. Withdrawal of the rejections under §102(b) and (e), therefore, is respectfully requested.

Reconsideration and allowance of the claims is respectfully urged.

Respectfully submitted,

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Attachment - Random House Dictionary, Page 870